

In the Claims:

Please AMEND claims 1, 3, 4, 6, 19, 20, and 21. Please CANCEL claims 2, 5, 7-18, and 22-30. Please ADD NEW claims 31-58.

1. (Amended) A modified anti-viral peptide comprising:

a peptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541, and that exhibits anti-viral activity against human immunodeficiency virus (HIV), and

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a succinimidyl or maleimide containing group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds.

Please CANCEL claim 2.

3. (Amended) The modified peptide of claim 1 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

4. (Amended) The modified peptide of claim 1 wherein said peptide is DP 178 and comprises the amino acid sequence of SEQ ID NO:1.

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Please CANCEL claim 5.

6. (Amended) The modified peptide of claim 1 wherein said peptide is selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

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Please CANCEL claims 7-18.

19. (Amended) A composition for use in the prevention and/or treatment of acquired immune deficiency syndrome (AIDS) comprising a peptide wherein said peptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541, and that exhibits anti-viral activity against human immunodeficiency virus (HIV), modified with a succinimidyl or maleimide containing group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds.

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20. (Amended) The composition of claim 19 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

21. (Amended) The composition of claim 20 wherein said peptide is DP 178 comprising the amino acid sequence of SEQ ID NO:1.

Please CANCEL claims 22-30.

Please ADD the following NEW claims:

31. (New) The composition of claim 19 wherein said peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

32. (New) A conjugated peptide comprising the modified anti-viral peptide of claim 1 covalently bonded to a blood component.

33. (New) The conjugated peptide of claim 32 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

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34. (New) The conjugated peptide of claim 32, wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

35. (New) The conjugated peptide of claim 32, wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

36. (New) A composition comprising the modified anti-viral peptide of claim 1.

37. (New) The composition of claim 36 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

38. (New) The composition of claim 36 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

39. (New) The composition of claim 36 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

40. (New) A composition comprising the conjugated peptide of claim 31.

41. (New) The composition of claim 40 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

42. (New) The composition of claim 40 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

43. (New) The composition of claim 40 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534,

SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

44. (New) A method of treating human immunodeficiency virus (HIV) infection in a patient, comprising administering to said patient an effective amount of the modified anti-viral peptide of claim 1.

45. (New) The method of claim 44 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

46. (New) The method of claim 44 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

47. (New) The method of claim 44 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

48. (New) A method of treating human immunodeficiency virus (HIV) infection in a patient, comprising:

reacting the modified anti-viral peptide of claim 1 for a time and under conditions effective to form a covalent bond between said modified anti-viral peptide and said blood component, thereby forming a conjugate; and
administering said conjugate to said patient.

49. (New) The method of claim 48 wherein said succinimidyl or maleimide containing group is a maleimido containing group which is reactive with a thiol group on a blood protein.

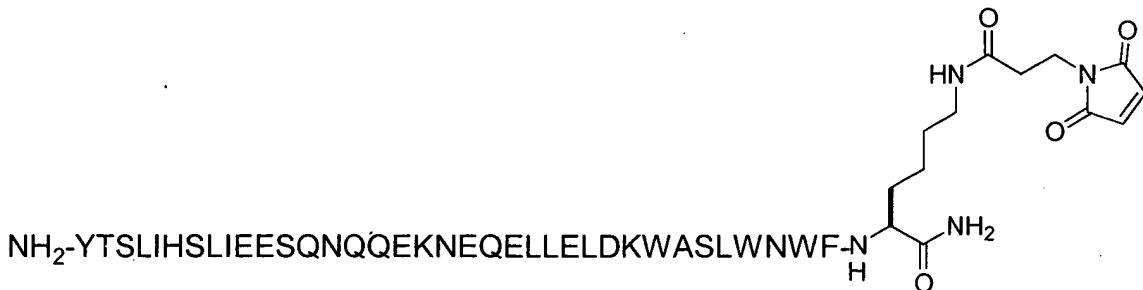
50. (New) The method of claim 48 wherein said modified anti-viral peptide comprises the amino acid sequence of SEQ ID NO:1.

51. (New) The method of claim 48 wherein said modified anti-viral peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 534, SEQ ID NO: 535, SEQ ID NO: 536, SEQ ID NO: 537, SEQ ID NO: 538, SEQ ID NO: 539, SEQ ID NO: 540, and SEQ ID NO: 541.

52. (New) The modified anti-viral peptide of claim 1 having formula



53. (New) The composition of claim 19 comprising the modified peptide of formula



54. (New) The conjugated peptide of claim 32 comprising the modified peptide of formula



55. (New) The composition of claim 36 comprising the modified peptide of formula



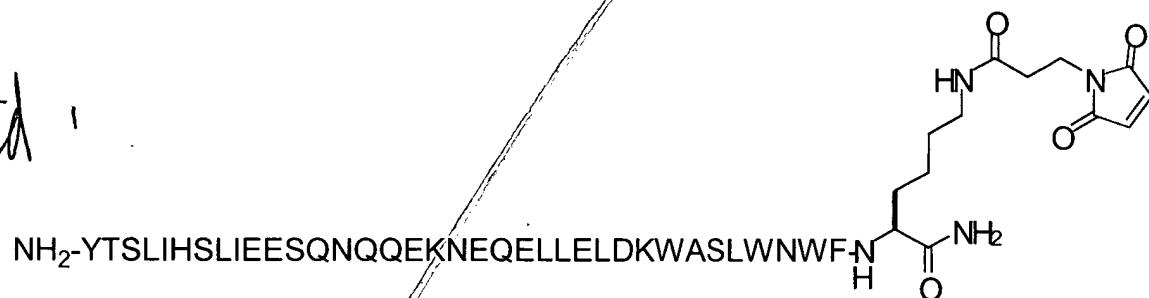
56. (New) The composition of claim 40 wherein the conjugated peptide comprises the modified peptide of formula



57. (New) The method of claim 44 wherein the modified peptide has the formula



58. (New) The method of claim 48 wherein the modified peptide has the formula



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